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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,175	01/23/2004	Purva R. Rajkotia	2003.09.005.WS0	7867

23990 7590 08/11/2006

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EXAMINER
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FIGUEROA, MARISOL

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/764,175

Applicant(s)

RAJKOTIA, PURVA R.

Examiner

Marisol Figueroa

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-3, 7-9, and 13-15** are rejected under 35 U.S.C. 102(b) as being anticipated by KIM et al. (US 6,418,322 B1).

**Regarding claim 1**, it is noted that the language used by Applicant merely suggest or makes optional those features described as “capable of”; such language does not require steps to be performed nor limits the claim to a particular structure.

Kim discloses, for use in a wireless network, a base station capable of releasing a call between said base station and a mobile station, said base station comprising:

a preamble frame detector capable of detecting preamble frames transmitted to said base station by said mobile station; and a transmit power controller capable of adjusting a power level of null frames transmitted by said base station (col. 5, lines 13-41; the base station receives or detects a PMRM, i.e., preamble, transmitted by a mobile station in response to received forward frames, i.e., null frames, transmitted by the base station, and additionally the base station is able to change the power control parameters of the forward frames to improve the quality of the forward link).

**Regarding claim 2**, it is noted that the language used by Applicant merely suggest or makes optional those features described as “capable of”; such language does not require steps to be performed nor limits the claim to a particular structure.

Kim discloses the base station as set forth in claim 1 wherein said preamble frame detector of said base station is capable of detecting at least one missing preamble frame from said mobile station; and wherein in response to said detection of said at least one missing preamble frame from said mobile station, said transmit power controller increases a power level of null frames transmitted by said base station (col. 5, lines 21-36; col. 5, line 60 – col. 6, lines 1-49; the base station increase the transmission power of its forward frames when it fails to receive the PMRMs from the mobile station within a predetermined period, i.e. missing preambles).

**Regarding claim 3**, Kim discloses the base station as set forth in claim 2 wherein said transmit power controller increases said power level of null frames by a step size having a configurable value (col. 6, lines 26-36).

**Regarding claim 7**, it is noted that the language used by Applicant merely suggest or makes optional those features described as “capable of”; such language does not require steps to be performed nor limits the claim to a particular structure.

Kim discloses a wireless network comprising a plurality of base stations, each of said plurality of base stations capable of releasing a call between said base station and a mobile station (Fig. 1), wherein said each base station comprises:

a preamble frame detector capable of detecting preamble frames transmitted to said base station by said mobile station; and a transmit power controller capable of adjusting a power level of null frames transmitted by said base station (col. 5, lines 13-41; the base station receives or detects a PMRM, i.e., preamble, transmitted by a mobile station in response to received forward frames, i.e.,

null frames, transmitted by the base station, and additionally the base station is able to change the power control parameters of the forward frames to improve the quality of the forward link).

**Regarding claim 8**, it is noted that the language used by Applicant merely suggest or makes optional those features described as “capable of”; such language does not require steps to be performed nor limits the claim to a particular structure.

Kim discloses the wireless network as set forth in claim 7 wherein said preamble frame detector of said each base station is capable of detecting at least one missing preamble frame from said mobile station; and wherein in response to said detection of said at least one missing preamble frame from said mobile station, said transmit power controller increases a power level of null frames transmitted by said base station (col. 5, lines 21-36; col. 5, line 60 – col. 6, lines 1-49; the base station increase the transmission power of its forward frames when it fails to receive the PMRMs from the mobile station within a predetermined period, i.e. missing preambles).

**Regarding claim 9**, Kim discloses the wireless network as set forth in claim 8 wherein said transmit power controller increases said power level of null frames by a step size having a configurable value (col. 6, lines 26-36).

**Regarding claim 13**, Kim discloses, for use in a wireless network, a method of operating a base station, the method comprising the steps of: transmitting null frames from said base station to a mobile station; detecting in a preamble frame detector of said base station preamble frames from said mobile station; and adjusting a power level of said null frames transmitted to said mobile station by said base station (col. 5, lines 13-41; the base station receives or detects a PMRM, i.e., preamble, transmitted by a mobile station in response to received forward frames, i.e., null frames, transmitted by the base station, and additionally the base station is able to change the power control parameters of the forward frames to improve the quality of the forward link).

**Regarding claim 14**, Kim discloses the method as set forth in claim 13 further comprising the steps of: detecting at least one missing preamble frame from said mobile station; and in response to said detection of said at least one missing preamble frame from said mobile station, increasing a power level of null frames transmitted by said base station (col. 5, lines 21-36; col. 5, line 60 – col. 6, lines 1-49; the base station increase the transmission power of its forward frames when it fails to receive the PMRMs from the mobile station within a predetermined period, i.e. missing preambles).

**Regarding claim 15**, Kim discloses the method as set forth in claim 14 wherein said power level of said null frames is increased by a step size having a configurable value (col. 6, lines 26-36).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 4, 5, 10, 11, 16, and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over KIM et al. in view of BROOKS et al. (US 2002/0090947A1).

**Regarding claim 4**, Kim discloses the base station as set forth in claim 2, but doesn't expressly disclose wherein said base station further comprises: a fade timer having a configurable value; wherein said base station starts said fade timer when said preamble frame detector detects at least one missing preamble frame from said mobile station; and wherein said base station stops sending said null frames to said mobile station when said preamble frame detector detects at least one missing preamble frame from said mobile station.

However, Brooks teaches in paragraph 0023, a base station that monitors the reverse link for reverse traffic channels frames (i.e., preamble) and detects a drop call when it does not receive reverse traffic channels frames for a period of time, typically 5 seconds (i.e., fade timer), which makes the base station to end the transmission on the forward traffic channel (i.e., null frames).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, for the base station to further comprise a fade timer having a configurable value; wherein said base station starts said fade timer when said preamble frame detector detects at least one missing frame from said mobile station, and wherein the base station stops sending said null frames to said mobile stations when said preamble frame detects at least one missing frame from said mobile station, as suggested by Brooks, because it is well known in the art for a base station to comprise a fade timer for detecting a drop call to free up communication resources of the base station when a connection is in bad condition as detected by the loss of the reverse link.

**Regarding claim 5**, the combination of Kim and Brooks disclose the base station as set forth in claim 4, Brooks discloses wherein said base station releases said call between said base station and said mobile station when one of: said fade timer expires and a maximum power level for said null frames is exceeded (p.0023; the base station drops the call when it does not receive the reverse traffic channel frames for a period of time, i.e., fade timer).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, wherein the base station releases said call between said base station and said mobile station when one of: said fade timer expires, as suggested by Brooks, because if connections continue to deteriorate for the entire period of time, the connections are useless.

**Regarding claim 10**, Kim discloses the wireless network as set forth in claim 8, but doesn't expressly disclose wherein said each base station further comprises: a fade timer having a

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configurable value; wherein said each base station starts said fade timer when said preamble frame detector detects at least one missing preamble frame from said mobile station; and wherein said each base station stops sending said null frames to said mobile station when said preamble frame detector detects at least one missing preamble frame from said mobile station.

However, Brooks teaches in paragraph 0023, a base station that monitors the reverse link for reverse traffic channels frames (i.e., preamble) and detects a drop call when it does not receive reverse traffic channels frames for a period of time, typically 5 seconds (i.e., fade timer), which makes the base station to end the transmission on the forward traffic channel (i.e., null frames).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, for the base station to further comprise a fade timer having a configurable value; wherein said base station starts said fade timer when said preamble frame detector detects at least one missing frame from said mobile station, and wherein the base station stops sending said null frames to said mobile stations when said preamble frame detects at least one missing frame from said mobile station, as suggested by Brooks, because it is well known in the art for a base station to comprise a fade timer for detecting a drop call to free up communication resources of the base station when a connection is in bad condition as detected by the loss of the reverse link.

**Regarding claim 11,** Kim discloses the wireless network as set forth in claim 10, Brooks discloses wherein said each base station releases said call between said each base station and said mobile station when one of: said fade timer expires and a maximum power level for said null frames is exceeded (p.0023; the base station drops the call when it does not receive the reverse traffic channel frames for a period of time, i.e., fade timer).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, wherein the base station releases said call between said base station and said mobile



station when one of: said fade timer expires, as suggested by Brooks, because if connections continue to deteriorate for the entire period of time, the connections are useless.

**Regarding claim 16**, Kim discloses the method as set forth in claim 14, but doesn't expressly disclose further comprising the steps of: providing in said base station a fade timer that has a configurable value; starting said fade timer when said preamble frame detector detects at least one missing preamble frame from said mobile station; and stopping a transmission of said null frames to said mobile station when said preamble frame detector detects at least one missing preamble frame from said mobile station.

However, Brooks teaches in paragraph 0023, a base station that monitors the reverse link for reverse traffic channels frames (i.e., preamble) and detects a drop call when it does not receive reverse traffic channels frames for a period of time, typically 5 seconds (i.e., fade timer), which makes the base station to end the transmission on the forward traffic channel (i.e., null frames).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, for the base station to further comprise a fade timer having a configurable value; wherein said base station starts said fade timer when said preamble frame detector detects at least one missing frame from said mobile station, and wherein the base station stops sending said null frames to said mobile stations when said preamble frame detects at least one missing frame from said mobile station, as suggested by Brooks, because it is well known in the art for a base station to comprise a fade timer for detecting a drop call to free up communication resources of the base station when a connection is in bad condition as detected by the loss of the reverse link.

**Regarding claim 17**, the combination of Kim and Brooks disclose the method as set forth in claim 16, Brooks discloses further comprising the step of: releasing a call between said base station and said mobile station when one of: said fade timer expires and a maximum power level for

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said null frames is exceeded (p.0023; the base station drops the call when it does not receive the reverse traffic channel frames for a period of time, i.e., fade timer).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, wherein the base station releases said call between said base station and said mobile station when one of: said fade timer expires, as suggested by Brooks, because if connections continue to deteriorate for the entire period of time, the connections are useless.

6. **Claims 6, 12, and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over KIM et al. in view of BROOKS et al., and further in view of CHUN et al. (US 2002/0068586 A1).

**Regarding claim 6**, the combination of Kim and Brooks disclose the base station as set forth in claim 4, but doesn't expressly disclose wherein said configurable value of said fade timer is less than five seconds.

However, Chun teaches that a fade timer can range from 0 to 10 seconds depending on a system operation state, and in his invention is preferably set to 1.2 seconds which is a shorter time than the typical 5 seconds for releasing a call in the prior art (p.0070).

Therefore, it would have been obvious matter of design choice to a person having ordinary skill in the art, to configure said fade timer to a value of less than five seconds, as suggested by Chun, because this value varies depending on the operation of the system and subscriber characteristics.

**Regarding claim 12**, the combination of Kim and Brooks disclose the wireless network as set forth in claim 10, but doesn't expressly disclose wherein said configurable value of said fade timer is less than five seconds.

However, Chun teaches that a fade timer can ranges from 0 to 10 seconds depending on a system operation state, and in his invention is preferably set to 1.2 seconds which is a shorter time than the typical 5 seconds for releasing a call in the prior art (p.0070).

Therefore, it would have been obvious matter of design choice to a person having ordinary skill in the art, to configured said fade timer to a value of less than five seconds, as suggested by Chun, because this value varies depending on the operation of the system and subscriber characteristics.

**Regarding claim 18**, the combination of Kim and Brooks disclose the method as set forth in claim 16, but doesn't expressly disclose wherein said configurable value of said fade timer is less than five seconds.

However, Chun teaches that a fade timer can ranges from 0 to 10 seconds depending on a system operation state, and in his invention is preferably set to 1.2 seconds which is a shorter time than the typical 5 seconds for releasing a call in the prior art (p.0070).

Therefore, it would have been obvious matter of design choice to a person having ordinary skill in the art, to configured said fade timer to a value of less than five seconds, as suggested by Chun, because this value varies depending on the operation of the system and subscriber characteristics.

7. **Claims 19-21, and 25-27** are rejected under 35 U.S.C. 103(a) as being unpatentable over KIM et al. in view of SASHIHARA (US 2002/0041584 A1).

**Regarding claim 19**, it is noted that the language used by Applicant merely suggest or makes optional those features described as "capable of"; such language does not require steps to be performed nor limits the claim to a particular structure.

Kim discloses, for use in a wireless network, an apparatus capable of releasing a call between said apparatus and a second apparatus, said apparatus comprising:

a main processor; a null frame monitor program capable of detecting null frames transmitted to said apparatus by said second apparatus; and a transmit power control program capable of adjusting a power level of preamble frames transmitted by said apparatus (col. 5, lines 13-41; the base station (i.e., apparatus) receives or detects a PMRM (i.e., null frames), transmitted by a mobile station (i.e., second apparatus), and additionally the base station is able to change the power control parameters of the forward frames (i.e., preamble frames) to improve the quality of the forward link).

Kim doesn't expressly specify that the apparatus is a mobile station, rather, discloses that the apparatus could be a base station, however, the limitation of a mobile station is without more a characterization of an apparatus, and Sashihara is evidence of the fact that a mobile station and a base station can be of interchangeable functions. Sashihara teaches that in an ad hoc network, mobile terminals can either act as a temporary base station and a mobile terminal (p.0034).

Therefore, it would have been obvious to a person having ordinary skill in the art, that the apparatus taught by Kim, can be either be a base station or mobile station, as suggested by Sashihara, because in an ad hoc network mobile terminals can either act as a base station or a mobile terminal, to communicate without the need of a fixed base station.

**Regarding claim 20**, it is noted that the language used by Applicant merely suggest or makes optional those features described as "capable of"; such language does not require steps to be performed nor limits the claim to a particular structure.

The combination of Kim and Sashihara disclose the apparatus as set forth in claim 19, Kim discloses wherein said null frame monitor program of said apparatus is capable of detecting at least one missing null frame from said second apparatus; and wherein in response to said detection of

said at least one missing null frame from said second apparatus, said transmit power control program increases a power level of preamble frames transmitted by said apparatus (col. 5, lines 21-36; col. 5, line 60 – col. 6, lines 1-49; the base station (i.e., apparatus) increase the transmission power of its forward frames (i.e., preamble frames) when it fails to receive the PMRMs from the mobile station (i.e., second apparatus) within a predetermined period, i.e. missing null frames).

**Regarding claim 21**, the combination of Kim and Sashihara disclose the apparatus of claim 20, Kim discloses wherein said transmit power control program increases said power level of said preamble frames by a step size having a configurable value (col. 6, lines 26-36).

**Regarding claim 25**, it is noted that the language used by Applicant merely suggest or makes optional those features described as “capable of”; such language does not require steps to be performed nor limits the claim to a particular structure.

Kim discloses, for use in a wireless network, a method of operating an apparatus, the method comprising the steps of:

transmitting preamble frames from said apparatus to a second apparatus; detecting in a null frame monitor program of apparatus null frames from second apparatus; and adjusting a power level of said preamble frames transmitted to said second apparatus by said apparatus (col. 5, lines 13-41; the base station (i.e., apparatus) receives or detects a PMRM (i.e., null frames), transmitted by a mobile station (i.e., second apparatus), and additionally the base station is able to change the power control parameters of the forward frames (i.e., preamble frames) to improve the quality of the forward link).

Kim doesn't expressly specify that the apparatus is a mobile station, rather, discloses that the apparatus could be a base station, however, the limitation of a mobile station is without more a characterization of an apparatus, and Sashihara is evidence of the fact that a mobile station and a

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base station can be of interchangeable functions. Sashihara teaches that in an ad hoc network, mobile terminals can either act as a temporary base station and a mobile terminal (p.0034).

Therefore, it would have been obvious to a person having ordinary skill in the art, that the apparatus taught by Kim, can be either be a base station or mobile station, as suggested by Sashihara, because in an ad hoc network mobile terminals can either act as a base station or a mobile terminal, to communicate without the need of a fixed base station.

**Regarding claim 26**, the combination of Kim and Sashihara disclose the method as set forth in claim 25, Kim discloses further comprising the steps of: detecting at least one missing null frame from said second apparatus; and in response to said detection of said at least one missing null frame from said second apparatus, increasing a power level of preamble frames transmitted by said apparatus (col. 5, lines 21-36; col. 5, line 60 – col. 6, lines 1-49; the base station (i.e., apparatus) increase the transmission power of its forward frames (i.e., preamble frames) when it fails to receive the PMRMs from the mobile station (i.e., second apparatus) within a predetermined period, i.e. missing null frames).

**Regarding claim 27**, the combination of Kim and Sashihara disclose the method as set forth in claim 26, Kim discloses wherein said power level of said preamble frames is increased by a step size having a configurable value (col. 6, lines 26-36).

8. **Claims 22, 23, 28, and 29** are rejected under 35 U.S.C. 103(a) as being unpatentable over KIM et al. in view of SASHIHARA, and further in view of BROOKS et al.

**Regarding claim 22**, the combination of Kim and Sashihara disclose the apparatus as set forth in claim 20, Kim discloses wherein said apparatus increases power to said preamble frames in relation to a detected number of missing null frames when said null frame monitor program detects missing null frames from said second apparatus (col. 5, lines 21-36; col. 5, line 60 – col. 6, lines 1-49;

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the base station (i.e., apparatus) increase the transmission power of its forward frames (i.e., preamble frames) when it fails to receive the PMRMs from the mobile station (i.e., second apparatus) within a predetermined period, i.e. missing null frames).

The combination of Kim and Sashihara doesn't expressly disclose wherein said apparatus further comprises: a fade timer having a configurable value; wherein said apparatus starts said fade timer when said null frame monitor program detects at least one missing null frame from said second apparatus.

However, Brooks teaches in paragraphs 0022-0023, a base station (i.e., apparatus) that monitors the reverse link for reverse traffic channels frames (i.e., preamble) and detects a drop call when it does not receive reverse traffic channels frames for a period of time, typically 5 seconds (i.e., fade timer), which makes the base station to end the transmission on the forward traffic channel (i.e., null frames).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, for the apparatus to further comprise a fade timer having a configurable value; wherein said apparatus starts said fade timer when said preamble frame detector detects at least one missing frame from said second apparatus, as suggested by Brooks, because it is well known in the art for a base station or mobile station, i.e. apparatus, to comprise a fade timer for detecting a drop call to free up communication resources when a connection is in bad condition as detected by the loss of the reverse or forward link accordingly.

**Regarding claim 23**, the combination of Kim, Sashihara, and Brooks disclose the apparatus as set forth in claim 22, Brooks disclose wherein said apparatus releases said call between said apparatus and said second apparatus when one of: said fade timer expires and a maximum

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power level for said preamble frames is exceeded (p.0022-0023; the base station drops the call when it does not receive the reverse traffic channel frames for a period of time, i.e., fade timer).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, wherein the apparatus releases said call between said apparatus and said second apparatus when one of: said fade timer expires, as suggested by Brooks, because if connections continue to deteriorate for the entire period of time, the connections are useless.

**Regarding claim 28**, the combination of Kim, and Sashihara disclose the method as set forth in claim 26, Kim discloses further comprising the steps of increasing power to said preamble frames in relation to a detected number of missing null frames when said null frame monitor program detects missing null frames from said second apparatus (col. 5, lines 21-36; col. 5, line 60 – col. 6, lines 1-49; the base station (i.e., apparatus) increase the transmission power of its forward frames (i.e., preamble frames) when it fails to receive the PMRMs from the mobile station (i.e., second apparatus) within a predetermined period, i.e. missing null frames).

The combination of Kim and Sashihara doesn't expressly disclose providing in said apparatus a fade timer that has a configurable value; starting said fade timer when said null frame monitor program detects at least one missing null from said second apparatus.

However, Brooks teaches in paragraphs 0022-0023, a base station (i.e., apparatus) that monitors the reverse link for reverse traffic channels frames (i.e., preamble) and detects a drop call when it does not receive reverse traffic channels frames for a period of time, typically 5 seconds (i.e., fade timer), which makes the base station to end the transmission on the forward traffic channel (i.e., null frames).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, for the apparatus to further comprise a fade timer having a configurable value;



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wherein said apparatus starts said fade timer when said preamble frame detector detects at least one missing frame from said second apparatus, as suggested by Brooks, because it is well known in the art for a base station or mobile station, i.e. apparatus, to comprise a fade timer for detecting a drop call to free up communication resources when a connection is in bad condition as detected by the loss of the reverse or forward link accordingly.

**Regarding claim 29**, the combination of Kim, Sashihara, and Brooks disclose the method as set forth in claim 28, Brooks discloses further comprising the step of: releasing a call between said apparatus and said second apparatus when one of: said fade timer expires and a maximum power level for said preamble frames is exceeded (p.0022-0023; the base station drops the call when it does not receive the reverse traffic channel frames for a period of time, i.e., fade timer).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, wherein the apparatus releases said call between said apparatus and said second apparatus when one of: said fade timer expires, as suggested by Brooks, because if connections continue to deteriorate for the entire period of time, the connections are useless.

9. **Claims 24 and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over KIM et al. in view of SASHIHARA, and BROOKS et al., and further in view of CHUN et al.

**Regarding claim 24**, the combination of Kim, Sashihara, and Brooks disclose the apparatus as set forth in claim 22, but doesn't expressly disclose wherein said configurable value of said fade timer is less than five seconds.

However, Chun teaches that a fade timer can range from 0 to 10 seconds depending on a system operation state, and in his invention is preferably set to 1.2 seconds which is a shorter time than the typical 5 seconds for releasing a call in the prior art (p.0070).

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Therefore, it would have been obvious matter of design choice to a person having ordinary skill in the art, to configured said fade timer to a value of less than five seconds, as suggested by Chun, because this value varies depending on the operation of the system and subscriber characteristics.

**Regarding claim 30**, the combination of Kim, Sashihara, and Brooks disclose the method as set forth in claim 28, but doesn't expressly disclose wherein said configurable value of said fade timer is less than five seconds.

However, Chun teaches that a fade timer can ranges from 0 to 10 seconds depending on a system operation state, and in his invention is preferably set to 1.2 seconds which is a shorter time than the typical 5 seconds for releasing a call in the prior art (p.0070).

Therefore, it would have been obvious matter of design choice to a person having ordinary skill in the art, to configured said fade timer to a value of less than five seconds, as suggested by Chun, because this value varies depending on the operation of the system and subscriber characteristics.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marisol Figueroa whose telephone number is (571) 272-7840. The examiner can normally be reached on Monday Thru Friday 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Marisol Figueroa  
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